

**A BIBLIOGRAPHY ON INDIAN SEA CUCUMBERS**

**THE FISHERIES TECHNOCRATS FORUM  
CHENNAI-600 006**

**MARCH 2004**

# **A BIBLIOGRAPHY ON INDIAN SEA CUCUMBERS**

**Compiled  
by  
Dr. D.B. JAMES**

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## **PREFACE**

Sea cucumbers are an interesting group of purely marine animals and do not enter either brackishwater or freshwater regions. They are found from Arctic to Antarctic, inhabiting right from the shore to greatest depths of oceans. They occupy different habitats such as rocky shores, muddy flats, sandy beaches, coral reefs and mangrove swamps. Some of them are epiphytic or even pelagic. They measure from a few millimeters to two metres in length. They do occur in all colour forms and those beautifully coloured ones are in great demand for marine aquariums.

Sea cucumbers are a delicacy for the Chinese, the Japanese and the Koreans. They are consumed in fresh, chilled, frozen, dried and in the processed forms. Processed product commands a high price of US \$ 400 per kg in the international markets at Hong Kong, Singapore, Taiwan, etc. They find an important place in the traditional Chinese medicines. They have cytotoxic, ichthyotoxic, anti-microbial, anti-tumoral, anti-cancerous, anti-leukemic and anti-fouling properties. Hence, they are in lime light in biomedical research to-day.

There are about 1,400 species of sea cucumbers in the world oceans, of which, nearly 30 species are edible. Nearly 200 species are known to occur in the seas around India, of which, 15 species are used for processing. The processing of sea cucumber was introduced in India more than one thousand years ago by the Chinese.

A wealth of information on taxonomy, biology, ecology, biochemistry, exploitation, conservation and management, hatchery seed production and field culture of Indian sea cucumbers are available in the publications brought out during 1830-2004 (up to February 2004).

Dr. D.B. James, the Retired Principal Scientist and member of the Fisheries Technocrats Forum, Chennai, has entirely devoted his 40 years of service in Central Marine Fisheries Research Institute, Cochin in carrying out researches on sea cucumbers at Mandapam Camp, Tuticorin, Andaman & Nicobar Islands and Chennai, as evidenced in this bibliography. Initially he studied the systematics, ecology, biology, exploitation and utilization of sea-cucumbers and later concentrated on hatchery seed production of most-sought species *Holothuria (Metriatyla) scabra*. He has successfully developed a viable technology on hatchery seed production for H. (M.)

scabra and transferred the technology to Government of the Maldives through a FAO consultancy programme.

In this bibliography, an attempt has been made to include all the Indian references on sea cucumbers. Further, those references from the contiguous areas like Sri Lanka, the Maldives, Pakistan and the Mergui Archipelago where the same faunal population is available, are also added to make this bibliography more comprehensive.

I congratulate Dr. D.B. James in compiling this bibliography on sea cucumbers, which will be of highly useful for those who intend to do research, management of natural resources, framing appropriate policies and aquaculture for sustaining the wealth of Indian sea cucumbers. The sincere efforts taken by Shri, M. Kathirvel, Secretary of the Forum in bringing out this bibliography in a short time, is appreciated.

Chennai-600 006  
5-3-2004

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